



Attorney Docket No.: 43390-8003.US01

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CERTIFICATION MAILING

I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as First Class Mail in an envelope addressed to: mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on:

Date: March 9, 2007

By: [Signature]
Steven Goldstein

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: THOMSON *ET AL.*

APPLICATION No.: 10/667,136

FILED: SEPTEMBER 17, 2003

FOR: WIRELESS LAN MEASUREMENT FEEDBACK

EXAMINER: JULIO PEREZ

ART UNIT: 2681

CONF. NO: 7186

Information Disclosure Statement After First Office Action but Before Final Action or Notice of Allowance – 37 C.F.R. § 1.97(c)

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The undersigned submits the following references without admitting that any enclosed item of information constitutes prior art to the subject invention and specifically reserves the right to demonstrate that any such reference is not prior art. The undersigned, in an effort to focus the scope of this review, has identified the following subset of references as **most relevant** to the subject invention:

U.S. PATENT DOCUMENTS

Cite No.	U.S. Patent of Application Number	Name of Patentee or Inventor of Cited Document	Date of Publication or Filing Date of Cited Document
1.	11/588,848	Zeldin et al.	10/26/06
2.	11/588,849	Zeldin et al.	10/26/06
3.	11/588,878	Zeldin et al.	10/26/06
4.	11/592,891	Zeldin et al.	11/22/06
5.	11/595,119	Murphy	11/10/06
6.	11/604,075	Murphy et al.	11/22/06
7.	2002/0069278	Forslow	06/06/02
8.	2002/0191572	Weinstein et al.	12/19/02
9.	2004/0047320	Eglin	03/11/04

03/14/2007 NHGUYEN1 00000003 502207 10667136

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10.	2004/0095932	Astarabadi et al.	0/20/04
12.	2004/0259555	Rappaport et al.	12/23/04
13.	2005/0068925	Palm et al	09/12/03
25.	4,494,238	Groth	1/85
30.	4,630,264	Wah	12/86
33.	4,644,523	Horwitz	2/87
46.	4,894,842	Brockhoven et al.	1/90
49.	4,933,952	Albrieux et al.	6/90
52.	5,029,183	Tymes	7/91
54.	5,103,459	Gilhousen et al.	4/92
54.	5,103,461	Tymes	4/92
62.	5,285,494	Sprecher et al.	2/94
63.	5,329,531	Diepstraten	7/94
66.	5,488,569	Huang et al.	9/95
67.	5,450,615	Fortune et al.	9/95
69.	5,479,441	Tymes et al.	12/95
70.	5,483,676	Mahany et al.	1/96
71.	5,491,644	Pickering et al.	2/96
75.	5,561,841	Markus	10/96
77.	5,598,532	Liron	1/97
79.	5,640,414	Blakeney et al.	6/97
83.	5,794,128	Brocket et al.	8/98
86.	5,828,960	Tang et al.	10/98
90.	5,896,561	Schrader et al.	4/99
91.	5,915,214	Reece et al.	6/99
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94.	5,949,988	Feisullin et al.	9/99
95.	5,953,669	Stratis et al.	9/99
96.	5,960,335	Umemoto et al.	9/99
98.	5,987,062	Engwer et al.	11/99
99.	5,987,328	Ephremides et al.	11/99
100.	6,005,853	Wang et al.	12/99
103.	6,088,591	Trompower	7/00
104.	6,119,009	Baranger et al.	9/00
105.	6,199,032	Anderson	3/01
106.	6,208,841	Wallace et al.	3/01
111.	6,336,035	Somoza et al.	1/02
113.	6,393,290	Ufongene	5/02
114.	6,404,772	Beach et al.	6/02
115.	6,473,449	Cafarella et al.	10/02
116.	6,493,679	Rappaport et al.	12/02
117.	6,496,290	Lee	12/02
118.	6,580,700	Pinard et al.	6/03

120.	6,687,498	McKenna et al.	2/04
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A. Timing of Submission

The information transmitted herewith is being filed *after* three months of the filing date of this application or after the mailing date of the first Office action on the merits, whichever occurred last, but *before* the mailing date of either a final action under 37 C.F.R. § 1.113 or a Notice of Allowance under 37 C.F.R. § 1.311, whichever occurs first. The references listed on the enclosed Form PTO-1449 (modified) may be material to the examination of this application; the Examiner is requested to make them of record in the application.

B. Cited Information

- ☒ Copies of references 1-120 are issued patent(s) and published application(s) and are not included (see C.F.R. § 1.98(a)(2)(i)).
- ☒ Copies of references 121-140 are enclosed.

C. Effect of Information Disclosure Statement (37 C.F.R. § 1.97(h))

This Information Disclosure Statement is not to be construed as a representation that: (i) a search has been made; (ii) additional information material to the examination of this application does not exist; (iii) the information, protocols, results and the like reported by third parties are accurate or enabling; or (iv) the cited information is, or is considered to be, material to patentability. In addition, applicant does not admit that any enclosed item of information constitutes prior art to the subject invention and specifically reserves the right to demonstrate that any such reference is not prior art.

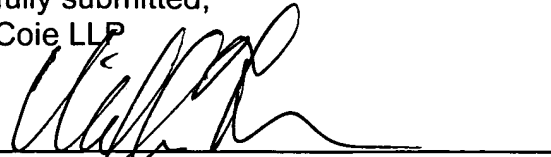
D. Fee Payment (37 C.F.R. § 1.97(c)) or Certification (37 C.F.R. § 1.97(e))

- ☒ Applicant elects to pay the fee under 37 C.F.R. § 1.17(p) \$180.00.
 - ☒ Please charge the above fee(s) to Deposit Account No. 50-02207.
 - ☒ Please charge any underpayment for timely filing of this paper to Deposit Account No. 50-2207.

E. Patent Term Adjustment (37 C.F.R. § 1.704(d))

- ☐ The undersigned states that each item of information submitted herewith was cited in a communication from a foreign patent office in a counterpart application and that this communication was not received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of this statement. 37 C.F.R. § 1.704(d).

Respectfully submitted,
Perkins Coie LLP

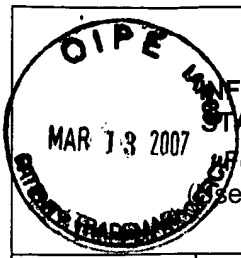


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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Form PTO-1449 (Modified)
(Use several sheets if necessary)

COMPLETE IF KNOWN

Application Number	10/667,136
Confirmation Number	7186
Filing Date	September 17, 2003
First Named Inventor	Thomson et al.
Group Art Unit	2681
Examiner Name	Julio Perez
Attorney Docket No.	43390-8003.US01

Sheet 1 of 6

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.	U.S. Patent or Application		Name of Patentee or Inventor of Cited Document	Publ. Appls. Date of Publication, Issue Date of Cited Document, or Filing Date of Applications.	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		NUMBER	Kind Code (if known)			
	1.	11/588,848		Zeldin et al.	10/06	
	2.	11/588,849		Zeldin et al.	10/06	
	3.	11/588,878		Zeldin et al.	10/06	
	4.	11/592,891		Zeldin et al.	11/06	
	5.	11/595,119		Murphy, James	11/06	
	6.	11/604,075		Murphy et al.	11/06	
	7.	2002/0069278	A1	Forslow	6/02	
	8.	2002/0191572	A1	Weinstein et al.	12/02	
	9.	2004/0047320	A1	Eglin	11/04	
	10.	2004/0095932	A1	Astarabadi et al.	5/04	
	11.	2004/0143428	A1	Rappaport, <i>et al.</i>	3/03	
	12.	2004/0259555	A1	Rappaport, <i>et al.</i>	12/04	
	13.	2005/0068925	A1	Palm, <i>et al.</i>	9/03	
	14.	2005/0073980	A1	Thomson et al.	4/05	
	15.	2005/0180358	A1	Kolar et al.	8/05	
	16.	3,641,433		Mifflin et al.	2/72	
	17.	4,168,400		De Couasnon et al.	9/79	
	18.	4,176,316		DeRoas et al.	11/79	
	19.	4,247,908		Lockart et al.	1/81	
	20.	4,291,401		Bachmann	9/81	
	21.	4,291,409		Weinberg et al.	9/81	
	22.	4,409,470		Shepard et al.	10/83	
	23.	4,460,120		Shepard et al.	7/84	
	24.	4,475,208		Ricketts	10/84	
	25.	4,494,238		Groth, Jr.	1/85	
	26.	4,500,987		Hasegawa	2/85	
	27.	4,503,533		Tobagi et al.	3/85	
	28.	4,550,414		Guinon et al.	10/85	
	29.	4,562,415		McBiles	12/85	
	30.	4,630,264		Wah	12/86	

EXAMINER

DATE CONSIDERED

*EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application(s).

INFORMATION DISCLOSURE STATEMENT BY APPLICANT Form PTO-1449 (Modified) (Use several sheets if necessary)				COMPLETE IF KNOWN	
				Application Number	10/667,136
				Confirmation Number	7186
				Filing Date	September 17, 2003
				First Named Inventor	Thomson et al.
				Group Art Unit	2681
				Examiner Name	Julio Perez
Sheet	2	of	6	Attorney Docket No.	43390-8003.US01

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Examiner Initials*	Cite No.	U.S. Patent or Application		Name of Patentee or Inventor of Cited Document	Publ. Appns. Date of Publication, Issue Date of Cited Document, or Filing Date of Applications.	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		NUMBER	Kind Code (if known)			
	31.	4,635,221		Kerr	1/87	
	32.	4,639,914		Winters	1/87	
	33.	4,644,523		Horwitz	2/87	
	34.	4,672,658		Kavehrad	6/87	
	35.	4,673,805		Shepard et al.	6/87	
	36.	4,707,839		Andren et al.	11/87	
	37.	4,730,340		Frazier	3/88	
	38.	4,736,095		Shepard et al.	4/88	
	39.	4,740,792		Sagey et al.	4/88	
	40.	4,758,717		Shepard et al.	7/88	
	41.	4,760,586		Takeda	7/88	
	42.	4,789,983		Acampora et al.	12/88	
	43.	4,829,540		Waggener et al.	5/89	
	44.	4,850,009		Zook et al.	7/89	
	45.	4,872,182		Mcrae et al.	10/89	
	46.	4,894,842		Brockhaven et al.	1/90	
	47.	4,901,307		Gilhousen et al.	2/90	
	48.	4,933,952		Albrieux et al.	6/90	
	49.	4,933,953		Yagi	6/90	
	50.	4,955,053		Simpson et al.	2/91	
	51.	5,008,899		Yamamoto	4/91	
	52.	5,029,183		Tymes	7/91	
	53.	5,103,459		Gilhousen et al.	4/92	
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	55.	5,109,390		Gilhousen et al.	4/92	
	56.	5,142,550		Tymes	8/92	
	57.	5,151,919		Dent	9/92	
	58.	5,157,687		Tymes	10/92	
	59.	5,187,575		Dent et al.	2/93	
	60.	5,231,633		Hluchyj et al.	7/93	

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	61.	5,280,498		Tymes et al.	1/94	
	62.	5,285,494		Sprecher et al.	2/94	
	63.	5,329,531		Diepstraten	7/94	
	64.	5,418,812		Reyes et al.	5/95	
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	66.	5,488,569		Huang et al.	9/95	
	67.	5,450,615		Fortune et al.	9/95	
	68.	5,465,401		Thompson	11/95	
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	71.	5,491,644		Pickering et al.	2/96	
	72.	5,517,495		Lund	5/96	
	73.	5,519,762		Bartlett	5/96	
	74.	5,528,621		Heiman et al.	6/96	
	75.	5,561,841		Markus	10/96	
	76.	5,568,513		Croft et al.	10/96	
	77.	5,598,532		Liron	1/97	
	78.	5,630,207		Gitlin et al.	5/97	
	79.	5,640,414		Blakeney et al.	6/97	
	80.	5,649,289		Wang et al.	7/97	
	81.	5,668,803		Tymes et al.	9/97	
	82.	5,793,303		Koga	8/98	
	83.	5,794,128		Brockel et al.	8/98	
	84.	5,812,589		Sealand et al.	9/98	
	85.	5,815,811		Pinard et al.	9/98	
	86.	5,828,960		Tang et al.	10/98	
	87.	5,584,048		Wieczorek	12/96	
	88.	5,844,900		Hong et al.	12/98	
	89.	5,875,179		Tikalsky	1/99	
	90.	5,896,561		Schrader et al.	4/99	

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	91.	5,915,214		Reece et al.	6/99	
	92.	5,920,821		Seazholtz et al.	7/99	
	93.	5,933,607		Tate et al.	8/99	
	94.	5,949,988		Feisullin et al.	9/99	
	95.	5,953,669		Stratis et al.	9/99	
	96.	5,960,335		Umemoto et al.	9/99	
	97.	5,982,779		Krishnakumar et al.	11/99	
	98.	5,987,062		Engwer et al.	11/99	
	99.	5,987,328		Ephremides et al.	11/99	
	100.	6,005,853		Wang et al.	12/99	
	101.	6,011,784		Brown	1/00	
	102.	6,078,568		Wright	6/00	
	103.	6,088,591		Trompower	7/00	
	104.	6,119,009		Baranger et al.	9/00	
	105.	6,199,032	B1	Anderson	3/01	
	106.	6,208,841		Wallace et al.	3/01	
	107.	6,218,930		Katzenberg et al.	4/01	
	108.	6,240,083		Wright	5/01	
	109.	6,256,334		Adachi	7/01	
	110.	6,285,662		Watannabe	9/01	
	111.	6,336,035		Somoza et al	1/02	
	112.	6,356,758	B1	Almeida et al.	3/02	
	113.	6,393,290	B1	Ulfongene	5/02	
	114.	6,404,772	B1	Beach et al.	6/02	
	115.	6,473,449	B1	Cafarella et al.	10/02	
	116.	6,493,679	B1	Rappaport et al.	12/02	
	117.	6,496,290	B1	Lee	12/02	
	118.	6,580,700	B1	Pinard et al.	6/03	
	119.	6,631,267		Thomson, et al	3/05	
	120.	6,687,498		McKenna, et al.	02/02/04	

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		Office	NUMBER	Kind Code (if known)				
	121.	PCT	WO94/03986		WIPO	2/94		
	122.	PCT	WO99/11003		WIPO	3/99		

OTHER PRIOR ART-NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume issue number(s), publisher, city and/or country where published.		T
	123.	Acampora and Winters, IEEE Communications Magazine, 25(8):11-20 (1987).		
	124.	Acampora and Winters, IEEE Journal on selected Areas in Communications. SAC-5:796-804 (1987).		
	125.	Bing and Subramanian, IEEE, 1318-1322 (1997).		
	126.	Durgin, et al., "Measurements and Models for Radio Path Loss and Penetration Loss in and Around Homes and Trees at 5.85 GHz", IEEE Transactions on Communications, vol. 46, No. 11, Nov. 1998.		
	127.	Freret et al., Applications of Spread-Spectrum Radio to Wireless Terminal Communications", Conf. Record, Nat'l Telecom. Conf., Nov. 30- Dec. 4, 1980.		
	128.	Fortune et al., IEEE Computational Science and Engineering, "Wise Design of Indoor Wireless Systems: Practical Computation and Optimization", pg. 58-68 (1995).		
	129.	Geier, Jim, Wireless Lans Implementing Interoperable Networks, Chapter 3 (pp. 89-125) Chapter 4 (pp. 129-157) Chapter 5 (pp. 159-189) and Chapter 6 (pp. 193-234), 1999, United States.		
	130.	Ho et al., "Antenna Effects on Indoor Obstructed Wireless Channels and a Deterministic Image-Based Wide-Based Propagation Model for In-Building Personal Communications Systems", International Journal of Wireless Information Networks, vol. 1, No. 1, 1994.		
	131.	Kim et al., "Radio Propagation Measurements and Prediction Using Three-Dimensional Ray Tracing in Urban Environments at 908 MHz and 1.9 GHz", IEEE Transactions on Vehicular Technology, vol. 48, No. 3, May 1999.		
	132.	Kleinrock and Scholl, Conference record 1977 ICC Volume 2 of 3, June 12-15 Chicago Illinois "Packet Switching in radio Channels: New Conflict-Free Multiple Access Schemes for a Small Number of data Useres", (1977).		
	133.	LAN/MAN Standars Committee of the IEEE Computer Society, Part 11:Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications:Higher Speed Physical Layer Extension in the 2.4 GHz Band, IEEE Std. 802.11b (1999).		

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Sheet	6	of	6		

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	134.	Okamoto and Xu, IEEE, Proceeding so of the 13 th Annual Hawaii International Conference on System Sciences, pp. 54-63 (1997).	
	135.	Panjwani et al., "Interactive Computation of Coverage Regions for Wireless Communication in Multifloored Indoor Environments", IEEE Journal on Selected Areas in Communications, vol. 14, No. 3, Apr. 1996.	
	136.	Perram and Martinez, "Technology Developments for Low-Cost Residential Alarm Systems", Proceedings 1977 Carnahan Conference on Crime Countermeasures", April 6-8, pp. 45-50 (1977).	
	137.	Piazzzi et al., "Achievable Accuracy of Site-Specific Path-Loss Predictions in Residential Environments", IEEE Transactions on Vehicular Technology, vol. 48, No. 3, May 1999.	
	138.	Seidel et al., "Site-Specific Propagation Prediction for Wireless In-Building Personal Communications System Design", IEEE Transactions on Vehicular Technology, vol. 43, No. 4, Nov. 1994.	
	139.	Skidmore et al., "Interactive Coverage Region and System Design Simulation for Wireless Communication Systems in Multi-floored Indoor Environments, SMT Plus" IEEE ICUPC '96 Proceedings (1996).	
	140.	Ullmo et al., "Wireless Propagation in Buildings: A Statistic Scattering Approach", IEEE Transactions on Vehicular Technology, vol. 48, No. 3, May 1999.	

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